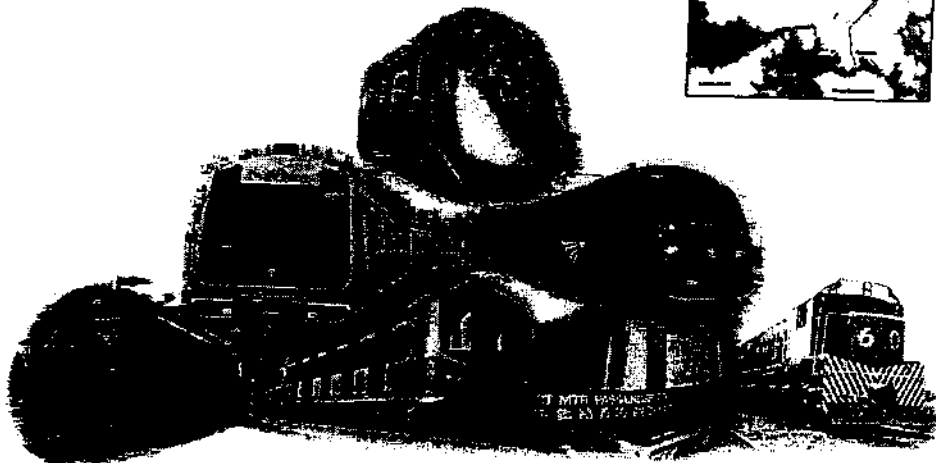


Recommendations for Strategic Guiding Principles for Future Rail Development



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11. RECOMMENDATIONS FOR STRATEGIC GUIDING PRINCIPLES FOR FUTURE RAIL DEVELOPMENT

11.1 Introduction

- 11.1.1 Whilst the RDS-2 Study has demonstrated the environmental benefits of promoting rail over road transport, it is acknowledged that the construction and operation of new rail lines does have the potential for environmental impacts. In response, this section of the report recommends strategic guiding principles for application when considering the future development of rail in Hong Kong, with the aim of reducing these inevitable potential impacts to a minimum. A number of these strategic guiding principles were developed as a result of the work undertaken by the SEA Team on the means of optimising the environmental benefits of railways in Hong Kong.
- 11.1.2 A required precursor to their application, however, in terms of optimising the environmental benefit that Hong Kong receives from future transport planning, is placing more emphasis on the environmental factors in the project appraisal procedures which are pointed out elsewhere in this report. This emphasis would promote the implementation of rail projects and increase the market share of railways in the mass transportation sector.
- 11.1.3 Specifically;
- Consideration should be given to ensuring that future railway schemes would not be militated by the differences in evaluation approach between road and railway projects. To capture the environmental benefits associated with railway proposals, the appraisal systems should incorporate environmental considerations into the evaluation process;
 - Government should consider appropriate forms of indirect support to railway proposals where necessary pursuant to the objective of giving priority to railways. It has been pointed out that bus operators pay no taxes for road usage, fuel, or first registration. Whilst (depending on a case by case basis) rail operators may receive property rights and/or equity injections from Government, further assistance to railway operations should also be considered; and
 - Review, and if appropriate, address the differences in the environmental performance criteria and mitigation requirements for railways and roads.
- 11.1.4 The recommendations below are concerned with rail development, since that is the focus of the RDS-2 study. Applied in isolation, these guidelines could result in discouraging rail transport by implying additional requirements on the selection of rail links. Clearly this is not the intention, and it is strongly recommended that equivalent principles be developed for other forms of transportation (e.g road, water-borne) to ensure that all transportation projects move towards achieving their full potential for environmental performance.

11.2 Recommended Strategic Guiding Principles

- In corridors where the case for rail is marginal or non-viable, a multi modal assessment should be undertaken considering all the transport alternatives including rail, LRT and other environmentally friendly road based modes as well as roads and conventional buses.
- Heavy rail links, especially in new areas of development, should be served and provide interchange facilities with 'environmentally friendly' feeder and distribution systems such as LRT, trolley-bus and electric bus in preference to private car, taxi and conventional bus.
- Comprehensive pedestrian links (both open and covered/ air conditioned) and cycleways should be emphasised, particularly in connection with residential and commercial developments around stations.
- Undergrounding should be adopted as the 'base case' vertical alignment when developing rail links, with proposals for at grade or elevated options being pursued only after undergrounding has been clearly established as unfeasible (acknowledging that such options would still be preferable overall to an equivalent road option).
- Bored tunnel construction methods should be adopted in preference to cut and cover methods, with a similar 'justification' requirement for cut and cover over bored tunnel as for at grade or elevated options above.
- Develop and maintain guidelines on environmentally preferred design and specification measures for rail links. The manual would include, *inter alia*, suggestions on topics such as at sources noise attenuation, maximising natural light within stations, enhancing energy efficiency and using energy efficient appliances, 'environmentally friendly' materials, and provide guidance on the preferred construction methodologies and materials to minimise environmental impacts.
- There should be improved co-ordination between government departments, or possibly institutional modifications, to ensure that there is both the efficient and timely exchange of information pertaining to the integration of land use requirements and planned housing developments into the railway planning and development process.
- Consideration should be given to the adoption of measures which support and enhance the role of railways as the principal means of passenger transportation in Hong Kong; this may include changes or improvements in policy or at the institutional level.
- If there are any major changes in the planning assumptions used during the development of the network that lead to higher transport demand, the railway development plan should be reviewed so that the implementation of the proposed rail infrastructure is, as far as practicable, undertaken in time to reduce the reliance on road transport.